E-Learning: Designing New Business Education

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Abstract
Business Schools are experiencing increased competitive pressures, and one way to differentiate and compete distinctively is through the adoption of innovative uses of information technology. However, the integration of information technology to business education is by no means trivial. This research seeks to provide some guidance about the effect of these new information technologies in the field of high-level executive education, providing a conceptual framework of the main key factors that have to be taken into account for the efficient and effective design of an executive education course.

Keywords
e-learning, information and communication technology, executive education, learning, business schools, online teaching, residential learning, ethnography.

1. Introduction

During the past two decades changes in the economic, social and technological environment have caused some profound changes in the way organizations function. In particular, new developments in the IT field have caused the appearance of new organizational structures, different work practices, and new training methods. As a consequence, during the past years both teaching and learning methodologies for executive education have started to change in educational institutions in general, and in business schools in particular.

Business schools are immersed in a process of innovation and continuous improvement (Mowday, 1997), which has been stimulating business education in international and multicultural contexts, as well as leading to a process of establishment of strategic alliances between business schools (Porter, 1997). Business schools are experiencing increased competitive pressures, and one way to differentiate and compete distinctively is through the adoption of innovative uses of information technology (Leidner and Jarvenpaa, 1995). In particular, distance education is living a new boom, as the recent developments of IT have allowed both a greater transmission of content and increased communicability among teachers and learners. However, the integration of information technology into management education is by no means trivial, and it is not simply a matter of providing computer access and training to faculty and students (Alavi and Yoo, 1997), but involves deep changes into both course design and delivery. Despite this, some universities (for example, Warwick University or Phoenix University) have introduced distance learning courses, and other business schools (for example, Business School or Fuqua Business School) have introduced a combination of residential and distance formats.

Despite these notorious efforts, no empirical evidence exists regarding the effect of these new information technologies in the field of high-level executive education. Hence, a fundamental motivation of this research is to provide a conceptual framework of the main key factors that have to be taken into account for the efficient and effective design of an executive education course. In addition, we are also interested in gaining insight about differences in course design depending on the type of knowledge to be transmitted in a course. Based on existing literature we first develop a framework that helps to describe the key factors and, in a second step, this framework is refined by examining an executive MBA program that relies heavily on the use of information and communication technologies.

Since very little is known about this issue, it is premature to define a narrow and tightly controlled research methodology with well-defined and operational variables and testable propositions. Doing so would rather obscure than illuminate the relationship between the key factors. This is why we have decided for the development of a conceptual model based on theoretical rather empirical findings. In order to gain deeper insights into the phenomenon and to get some practical understandings of it, we combine the development of the model with a contextualized interpretative study.

2. Research Model and Conceptual Foundations

2.1. Learning in Business Schools

The executive function can be described in terms of decision-making. Decisions can be structured or non-structured. To resolve structured problems, executives have to possess some specialized knowledge, as well as structured and explicit knowledge. However, to resolve non-structured problems the executives also have to have some abilities to integrate the enterprise functions in accordance with economic, organizational, political, social and anthropological environment demands.

To train executives in solving structured problems, learning programs with the objective of acquiring theoretical knowledge are the norm. The theoretical education is related with the passive methods of transferring knowledge, for example through a professor's lecture or a book. However, to train executives in solving non-structured problems the usual method is through educational programs where the learning objective would be threefold: (1) acquiring theoretical management knowledge, (2) developing attitudes; and (3) developing social skills for action. To achieve these goals, the adequate education in executive programs can be linked with active educational practical exercises (Christensen, Garvin and Sweet, 1991). The case method is such an active method, and it is widely used in business schools. Since most of the problems that executives have to resolve are non-structured, the case method makes students act and experiment. The use of the case method and other active methods of teaching makes executive education different from other types of education and therefore this should be reflected in the way of designing a program.

2.2. Design Factors for an Executive Education Program

Based on existing literature, we have found that there are five factors that should to be taken into account in the efficient design of an executive education program: learning objectives and course content, instructor profile, student profile, technology and the educational institution.

Learning Objectives and Course Content

In the context of a business school, it is important to first determine the learning objectives to achieve: knowledge transfer, developing abilities, developing interpersonal skills for action, and virtues.

When the instructor's main objective is to transfer knowledge from "instructor" to students, the presential education is more efficient, due to fact that the instructor is an expert with valued time. However, with new technologies, is not as necessary to be face-to-face, given that it is possible to record the session and transfer it by Internet or CD-ROM without the necessity of bringing professor and students together. Nevertheless, this method may not be adequate when students want to develop certain skills such as presentation and negotiation techniques, which are very difficult to transmit through non-presential methods.

The difference resides in the various types of knowledge to be transmitted, as differences in knowledge lead to differences in learning. A first distinction is between encoded and non-encoded knowledge. Encoded knowledge is fully explicit, conveyed by signs and symbols,

and can be easily shared between the educational program participants. Often, people know more than they can say and thus not all knowledge can be made explicit or be encoded. Blacker (1995) and Sieber (1998) establish that non-codified knowledge can be "embodied", embrained". While embodied knowledge refers to individual know-how, embedded knowledge is rooted in working routines or top management schemes and thus has a collective, context-dependent component. Therefore, when we find this type of knowledge to transfer, the collaborative context is very important, and the training only through information and communication technologies, without a high collaborative environment could not be enough. Finally, embrained knowledge is purely tacit, in the sense that it is that portion of knowledge that individuals possess, but which they are not able to articulate.

Instructor Profile

Collins (1995) concluded her literature review concerning the impact of media with this observation: "It is not the technology, but the technology instructional implementation of technology that determines its effects on learning".

There are many aspects to take into account when somebody analyzes which is the best instructor for a given course. Not all professors have the attitudes or skills to deliver a good residential class. Similarly, education through the Internet requires some specific abilities. Instructors need to develop different ways to deliver course material (Dede, 1991). The instructor of distance learning acquires a different role than the traditional one, as she acts more as a facilitator of the learning process than as a knowledge transmitter, given that the essence of online learning is typically self-guided. The teaching style, the instructor's control of the technology (Leidner and Jarvenpaa, 1993), the initial motivation, and the time the instructor assigns to online teaching are decisive in the course design and success. For instance, in a case discussion through Internet the professor should invest more time and dedication than in a residential class, which is limited to one or two hours. In order to have a good case discussion through the Internet, the instructor has to control the discussion at all time, show her presence and ask the correct questions to guide the discussion during the time the discussion takes place. Instructors need to learn a different set of teaching skills for transitioning into this role of discussion facilitator and manager (Berge, 1995). This includes intentional efforts at achieving verbal immediacy (Freitas et al., 1998) and use of a more conversational style in online comments to help enhance student participation and discussion (Ahearn and Peck, 1992).

Student Profile

A variety of aspects influence a student's decision to enroll in a course or program: localization, family, work restrictions, time availability, etc. In addition a student's learning style, computing experience (Colley et al., 1994), Internet usage skills (Atkinson and Kydd, 1997), and personal traits, such as being an independent, autonomous, reflexive or active person, as well as being a more individual or collaborative type of worker. Previous studies show that students attracted by online education share the following characteristics (Palloff and Pratt, 1999): they are voluntarily seeking further education, are motivated, have higher expectations, and are more self-disciplined, tend to be older than the average student, and tend to possess a more serious attitude toward their courses.

Technology

Webster and Hackley (1997) propose that reliability, quality and medium richness are key influences on learning outcomes. Medium richness theory (Daft and Lengel, 1986) and social presence theories (Rice, 1984) suggest that recreating the classroom learning environments to fit the Internet in its present format would be rather difficult. The relatively low richness of text-based media and the elimination of nonverbal cues would make accomplishing interdependent, ambiguous tasks such as case discussion and group projects particularly challenging (Arbaugh, 2000).

The flexibility of the technology-mediated distance courses such as Internet-based courses may help groups to reach levels of relational intimacy comparable to face-to-face groups (Arbraug, 2000). Flexibility of the course comes as a result of the medium being both place and time independent, allowing course conversations to continue over time in the midst of interruptions (Leidner and Jarvenpaa, 1995). Students are provided the opportunity to be more reflective and thoughtful in their discussion rather than having to compete to be recognized as is the case in physical classrooms (Dede, 1990).

Educational Institution

Educational institutions play a key role in administrative support (budget, technology services, etc.), academic support (adequate and specialized support staff for professors, appropriate salary, material copyright, etc.) and student service (like information about courses and programs, guidance, support network, etc.). In addition the overall institution's culture and strategy also influence design decisions of their academic programs.

As a result of the review of the existing literature on the design of executive education programs, we propose the following initial framework, shown in figure 1, to serve as a guidance for the empirical work to be develop on how information and communication technologies influence the design decisions.

3. Research Methodology

After having established the initial theoretical frame we are conducting an ethnographic study to get a deeper comprehension of the phenomenon. This will allow us to refine and clarify the above model as a prelude for future research. Although traditionally ethnography has been associated to research without the use of prior theory, recently several authors have encouraged the adoption of an explicit theoretical perspective prior to the immersion in the field (Miles and Huberman, 1984). Thus, while informed by theory, such research approach is nevertheless sufficiently flexible to allow the incorporation of any novel or contradictory insights emerging from the field.

Our research consists of a single in-depth field study of a 15 month executive MBA program combining online and residential learning: the IESE Global Executive MBA Program. The study uses data gathered from different sources. The primary source of data are interviews with the MBA participants, faculty and program staff. In addition we make direct observations during class and study time, and we are collecting selected documentation in both paper and electronic format. Data collection is taking place during the 15-month duration of the program, with a goal of gathering information as complete as possible, ranging from the

evolution of students expectations to their actual learning and possible internet-based social skills developed. Full access to both the residential and online parts of the program have been guaranteed by the academic direction of the program.

Regarding the research process, it is being highly interactive, as we are continuously re-evaluating the initial theoretical framework based on the results of the on-going data analysis. At the current state of the research, we are starting to become more focused, and we expect that we will be arriving at a point of closure during the next few months.

4. Conclusion and Expected Contributions

We expect to develop and evaluate a conceptual framework that can help understand the most appropriate way of delivering management education combining e-learning in harmony with the traditional face-to-face education. We expect to determine the key factors or components of a successful e-learning program and to answer questions like: How can high quality "online teaching" be assured in the context of a business school? or can "online teaching" substitute traditional face-to-face teaching, or is the most effective way a combination of both in executive education?.

The first results of our research, corroborate the factors of our conceptual model, but also show some issues we didn't appreciate from the literature, like differences in the student's objectives, influence their performance and that of others. Some students are more interested in grades that others, and their contribution to distance learning activities and teamwork is different.

Once we had the conceptual framework and the key factors from our research, we also expect to make a comparative study with other similar program that combines e-learning in harmony with the traditional face-to-face education, in order to get a more accurate model of the phenomenon.

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APPRENDICES
Figure 1.